

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018540**Date Inspected:** 07-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Wang li yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07674.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Hinge plate weld Components. Total number of welds MT Tested: 11 No's. The weld designations are review as follows:

1. SA3325-001-075, 076, 063
2. SEG3019K-064, 069, 070, 077, 078, 214, 213, 218.

This QA Inspector Randomly observed the following work in progress:

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Flux Cored Arc Welding (FCAW) of weld joint LD3041-001-413. Welder is identified as 044790. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-ESAB.

BAY- 2

FCAW welding of weld joint FB3343-001-081,085. Welder is identified as 067876. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-ESAB.

FCAW welding of weld joint FB3343-001-067,071. Welder is identified as 045276. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-ESAB.

FCAW welding of weld joint FB3343-001-143,147. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-ESAB.

FCAW welding of weld joint FB3343-001-129,133. Welder is identified as 058245. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-ESAB.

During QA random in-process observations of the fabrication of OBG Lift 14 West Floor beam hinge plate (FB) FB3343A, this Caltrans QA Inspector observed ZPMC Welding personnel performing welding without using weld tabs (extension bars and run off plates).The use of weld tabs is specified in AWS D1.5 2002 section 3.12.1.The weld joints are identified as FB3343-001-081,085,067,071,143,147,129 and 133.The welds are Partial Joint Penetration, T joints joining stiffener (X4949A/B) to stiffener (X4949L).The welding was being performed using Flux cored arc welding process in vertical (3G) position. The thickness of the stiffener plates is 45 mm and 30 mm.

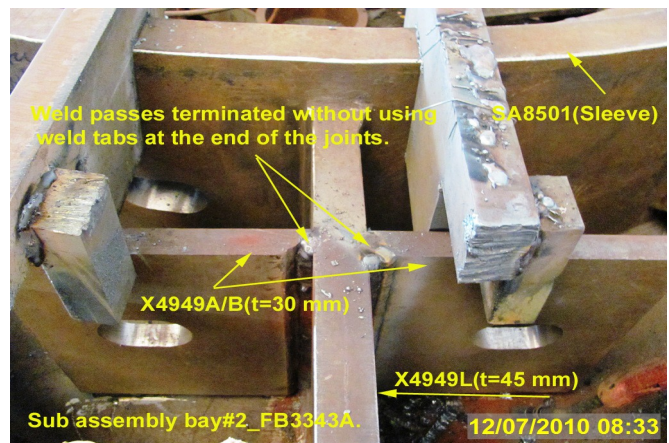
This QA Inspector generated an incident report for the above issue on this date, for further information see the incident report and attached photos.

This QA Inspector performed photo documentation on Lift 14 Hinge plates are identified as FB3343A,SA3325A, FB3273A,FB3327A,SA3409A located in sub assembly bay 2 and 3.These photos has been sent to QA lead Inspector and Structural Material Representative (SMR) by mail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer